

King Fahd University of Petroleum and Minerals
Prep-Year Math Program
Math (001)-Term (141)
Recitation (1. 8)

Question 1: Find the sum of all solutions of the equation $\frac{-7 + 5|3x - 4|}{7|3x - 4| - 2} = -3$

Answer: $\frac{8}{3}$

Question 2:

If the interval (m, n) is the solution of the inequality $\left| \frac{1}{2} - x \right| - 2 < 0$, then $4m + 6n =$

- A) 9 B) 1 C) 6 D) 12 E) 4

Question 3: Find the solution set, in interval notation, of

- A) $\left| \frac{2x + 5}{3} \right| - \frac{3}{4} < \frac{1}{2}$ B) $-3 \left| 2x - \frac{1}{3} \right| > \frac{3}{2}$ C) $|3x - 1| > 0$

Answer:

(A): $SS = \left(-\frac{35}{8}, -\frac{5}{8} \right)$

(B): $SS = \emptyset$

(C): $SS = \left(-\infty, \frac{1}{3} \right) \cup \left(\frac{1}{3}, \infty \right)$

Question 4: The solution set of the equation $|5x - 1| = |2x + 3|$ contains:

- (a): only one negative rational number.
 (b): one positive and one negative rational number.
 (c): only one positive rational number.
 (d): two negative rational numbers.
 (e): two positive rational numbers.